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REMARKS

In the Office Action, the Examiner rejected claims 1 and 6-8 under 35 U.S.C. §102; and rejected claims 2-5 and 9-25 under 35 U.S.C. §103(a). These rejections are fully traversed below.

Claims 13, 16, 17 and 22-25 have been amended to further clarify the subject matter regarded as the invention. Claims 1-12 have been cancelled without prejudice or disclaimer. Claims 13-25 are pending. Reconsideration of the application is respectfully requested.

REJECTION OF CLAIMS 1 AND 6-8 UNDER 35 USC 102(b)

On pages 1-2 of the Office Action, the Examiner rejected claims 1 and 6-8 under 35 USC 102(b) as being anticipated by Johnson et al., U.S. Patent No. 6,279,946. Applicants respectfully disagree. To expedite prosecution, claims 1 and 6-8 have been cancelled from the application without prejudice or disclaimer.

REJECTION OF CLAIMS 2-5 AND 9-12 UNDER 35 USC 103(a)

On pages 4-8 of the Office Action, the Examiner rejected claim 2 under 35 USC 103(a) as being unpatentable over Johnson et al.; rejected claims 3-5 under 35 USC 103(a) as being unpatentable over Johnson et al. in view of Meyer et al. (U.S. Pat. No. 5,588,041); rejected claim 9 under 35 USC 103(a) as being unpatentable over Johnson et al. in view of Norris (U.S. Pat. No. 6,151,398); and rejected claims 10-12 under 35 USC 103(a) as being unpatentable over Johnson et al. in view of American Technology Corporation Technology Licensing Webpage (hereafter "American Technology Corp."). Applicants respectfully disagree. To expedite prosecution, claims 2-5 and 9-12 have been cancelled from the application without prejudice or disclaimer.

PATENT**REJECTION OF CLAIMS 13-15 UNDER 35 USC 103(a)**

On pages 8-10 of the Office Action, the Examiner rejected claim 13 under 35 USC 103(a) as being unpatentable over Juntunen et al., U.S. Patent No. 6,163,711, in view of Takahashi et al., U.S. Patent No. 6,643,377, and rejected claims 14 and 15 under 35 USC 103(a) as being unpatentable over Juntunen et al. in view of Takahashi et al. and further in view of Brian (How Stuff Works – USB, Oct. 11, 2003). Applicants respectfully disagree.

Claim 13 pertains to a peripheral apparatus for an electronic device, where the electronic device is a personal wireless communication device. Further, the peripheral apparatus for the personal wireless communication device includes a directional speaker that provides ultrasonic sound output, and a controller operatively connected to the directional speaker. The controller operates to supply signals to the directional speaker so that the ultrasonic sound is output by the directional speaker.

Juntunen et al. describes a hands-free adapter for interfacing a mobile phone handset with an existing audio system. With respect to Juntunen et al., for discussion purposes, suppose that the mobile phone handset 1 and the adapter 2 illustrated in Fig. 1 of Juntunen et al. respectively correspond to the personal wireless electronic device and the peripheral apparatus of claim 13. Then, the AM or FM radio 3 Juntunen et al. (e.g., home stereo system, portable stereo system or vehicle radio) cannot correspond to the peripheral apparatus as recited in claim 13. The AM or FM radio 3 is a separate system that can be used with the mobile phone handset 1 via the adapter 2. The radio 3 cannot operate with the mobile phone handset 1 without the adapter 2. For example, the noun "peripheral" means:

An auxiliary device, such as a printer, modem, or storage system, that works in conjunction with a computer.¹

Since the radio 3 (i) operates as a separate system that does not need the mobile phone handset 1 to function normally, (ii) operates in a different manner

¹ *The American Heritage® Dictionary of the English Language, Fourth Edition.*

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when used with the mobile phone handset 1 and the adapter 2, and (iii) incapable of operating with the mobile phone handset 1 without the adapter 2, it is inappropriate to consider the radio 3 to be a peripheral apparatus of the mobile phone handset 3. If anything, it is the adapter 2 in Juntunen et al. that is a peripheral to the mobile phone handset 1. Neither the radio 3 nor the adapter 2 have a directional speaker with ultrasonic output. Hence, Juntunen et al. does not teach or suggest a peripheral apparatus having a directional speaker that provides ultrasonic sound output.

The Examiner also references an output plug 34 and a jack 35 of Juntunen et al. at Fig. 5 and col. 6, lines 59-64. However, as shown in Fig. 5 of Juntunen et al., the adapter 2 can provide an audio-out jack 35 for receiving a standard audio plug 34. Here, Juntunen et al. states "the adapter 2 may then be used with a number of cable devices to interface the audio signal from the mobile handset 1 to electronic equipment 36, such as a cassette player or CD player, that makes use of an audio system." However, the audio-out jack 35 is not a directional speaker; therefore, as previously noted, Juntunen et al. does not teach or suggest a peripheral apparatus having a directional speaker that provides ultrasonic sound output.

Moreover, claim 13 clearly recites that the peripheral apparatus is for removable connection with a hand-held wireless communication device, and the hand-held wireless communication device remains hand-held even after the peripheral apparatus is attached. In contrast, when the mobile handset 1 in Juntunen et al. is connected to the electronic equipment 36, such as a cassette player or CD player, the mobile handset 1 is no longer hand-held. As such, Juntunen et al. further fails to teach or suggest a peripheral apparatus for removable connection with a hand-held wireless communication device having a directional speaker that provides ultrasonic sound output.

Still further, on page 8 of the Office Action, the Examiner admits that Juntunen et al. does not teach a directional speaker that provides ultrasonic sound output. In view of the deficiencies of Juntunen et al., the Examiner relied

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on Takahashi et al. Takahashi et al. describes an audio output apparatus for use in providing a television conference. None of the television 102, the set top box 106 or the speakers 102, 103 in Takahashi et al. are (or part of) personal wireless communication devices or peripheral devices therefore. Hence, it is submitted that Juntunen et al. in view of Takahashi et al. fails to teach or suggest the peripheral apparatus recited in claim 13. Also, claims 14 and 15 depend from claim 13 and are, therefore, patentably distinct from Juntunen et al. in view of Takahashi et al. for at least the same reasons.

REJECTION OF CLAIMS 16-19 UNDER 35 USC 103(a)

On pages 10-12 of the Office Action, the Examiner rejected claims 16-19 under 35 USC 103(a) as being unpatentable over McNelley et al., U.S. Patent No. 5,777,665, in view of Takahashi et al. Applicants respectfully disagree.

Claim 16 pertains to a peripheral device for a computing device. The peripheral device has a housing with a directional speaker and a controller. The directional speaker is configured to provide ultrasonic sound output in a predetermined direction, wherein the ultrasonic sound output by the directional speaker can result in audio sound in the predetermined direction for a user of said computing device. The controller is connected to the directional speaker and operates to supply signals to the directional speaker so that the ultrasonic sound is output by the directional speaker. The peripheral device can also include "a port connector configured to assist with coupling said peripheral device to the computing device so that said computing device can drive said directional speaker to produce the audio sound."

In the Office Action, the Examiner points to Fig. 14 of McNelley et al. At Fig. 14, a beamsplitter 6 directs teleconferencing audio to a conferee. The audio sound is provided by a speaker 55, which can be "special directional speakers." Even so, McNelley et al. does not teach or suggest that the speaker 55 is "configured to provide ultrasonic sound output in a particular direction, wherein the ultrasonic sound output by said directional speaker results in audio sound in

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the particular direction for a user of said computing device" as is recited in claim 16. Also, the ports 18 and 19 illustrated in Fig. 6 of McNelley et al. are for the display 2, not the speaker 55 shown in Fig. 14. Still further, McNelley et al. does not teach or suggest a housing having a controller within a housing along with the directional speaker, where the controller operates to supply signals to the directional speaker so that the ultrasonic sound is output by the directional speaker.

In view of the deficiencies on McNelley et al., the Examiner further relied on Takahashi et al. Takahashi et al. describes an audio output apparatus for use in providing a television conference. None of the television 102, the set top box 106 or the speakers 102, 103 in Takahashi et al. are (or part of) a peripheral apparatus for an electronic device.

Therefore, it is submitted that McNelley et al. in view of Takahashi et al. fail to teach or suggest the peripheral apparatus recited in claim 16. Also, claims 17-19 depend from claim 16 and are, therefore, patentably distinct from McNelley et al. in view of Takahashi et al. for at least the same reasons.

REJECTION OF CLAIM 20 and 21 UNDER 35 USC 103(a)

On pages 12-13 of the Office Action, the Examiner rejected claims 20 and 21 under 35 USC 103(a) as being unpatentable over McNelley et al. in view of Takahashi et al. and further in view of Brian (How Stuff Works – USB, Oct. 11, 2002). Applicants respectfully disagree. Claims 20 and 21 depend from claim 16. Brian, even if combined with McNelley et al., fails to overcome the deficiencies of McNelley et al. and Takahashi et al. noted above. Hence, for at least the same reasons noted above, it is submitted that claims 20 and 21 are also patentably distinct from McNelley et al. in view of Takahashi et al. and/or Brian.

PATENT**REJECTION OF CLAIMS 22-25 UNDER 35 USC 103(a)**

On pages 13-15 of the Office Action, the Examiner rejected claims 22-25 under 35 USC 103(a) as being unpatentable over Breed et al., U.S. Patent Pub. No. 2001/0038698, in view of Johnson et al. Applicants respectfully disagree.

Claim 22 pertains to a method for automatically selecting one of a plurality of potential speakers associated with a hand-held audio output device, where at least one of the speakers is directional while at least one other of the speakers is substantially non-directional. Among other things, claim 22 recites: "obtaining a piece of information pertaining to the audio output device" and "determining whether the appropriate one or more of the potential speakers are to be directional, substantially non-directional or both based on the piece of information." In contrast, in Breed et al. the speakers are all directional (i.e., ultrasonic), and there cannot be any selection between directional and/or substantially non-directional speakers, let alone based on a piece of information as recited in claim 22. Further, the speakers in Breed et al. are not part of a hand-held audio output device.

The Examiner agrees that Breed et al. fails to teach the use of directional and substantially non-directional speaker or a method to control which speakers are in use. In view of the deficiencies of Breed et al., the Examiner again makes reference to col. 29, lines 19-35 of Johnson et al. However, there is nothing in column 29, lines 19-35 of Johnson et al. that teaches or suggests anything to overcome the deficiencies of Breed et al. In Johnson et al. there is no teaching to provide both direction and substantially non-directional speakers whether in or out of a vehicle. There is a merely casual reference to possible use of a hypersonic sound system at col. 29, lines 33-35 and a reference to a speaker 357 at col. 29, lines 41-42. Clearly, Johnson et al. offers no teaching or suggestion for use of both a directional speaker and a substantially non-directional speaker together in a vehicle. Even, for the sake of discussion, assuming that directional and substantially non-directional speakers were to be used together, there is no teaching or suggestion for any means or need to

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"determining whether the appropriate one or more of the potential speakers are to be directional, substantially non-directional or both based on the piece of information." as recited in claim 22. Still further, Johnson et al. does not teach or suggest that its in-vehicle system can be in any way associated with a hand-held audio output device.

Therefore, it is submitted that Breed et al. in view of Johnson et al. fails to teach or suggest not only the use of both directional and non-directional speakers but also the speaker selection by the apparatus as recited in claim 22. Also, claims 23-25 depend from claim 22 and are, therefore, patentably distinct from Breed et al. and Johnson et al. for at least the same reasons. Additionally, dependent claims 23-25 recite additional limitations that are not taught or suggested by Breed et al. or Johnson et al.

SUMMARY

It is submitted that all claims are patentably distinct from the cited references. Reconsideration of the application and an early Notice of Allowance are earnestly solicited.

If there are any issues remaining which the Examiner believes could be resolved through either a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned representative at the telephone number listed below.

Respectfully submitted,


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